DATE: 04/30/2001

TIME: 09:15:46

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/832,501

OIPE

```
Input Set : A:\PF542SL.txt
                     Output Set: N:\CRF3\04302001\I832501.raw
      3 <110> APPLICANT: Ballance, David J.
              Sleep, Darrell
      5
              Turner, Andrew J.
      6
              Sadeghi, Homa
                                                                        ENTERED
              Prior, Christopher P.
      9 <120> TITLE OF INVENTION: Albumin Fusion Proteins
     11 <130> FILE REFERENCE: PF542
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/832,501
     14 <141 > CURRENT FILING DATE: 2001-04-12
     16 <150 > PRIOR APPLICATION NUMBER: 60/229,358
     17 <151> PRIOR FILING DATE: 2000-04-12
     19 <150 > PRIOR APPLICATION NUMBER: 60/256,931
     20 <151> PRIOR FILING DATE: 2000-12-21
     22 <150> PRIOR APPLICATION NUMBER: 60/199,384
     23 <151> PRIOR FILING DATE: 2000-04-25
     25 <160> NUMBER OF SEQ ID NOS: 37
     27 <170> SOFTWARE: PatentIn Ver. 2.1
     29 < 210 > SEQ ID NO: 1
     30 <211> LENGTH: 23
     31 <212> TYPE: DNA
     32 <313> ORGANISM: Artificial Sequence
     34 <220> FEATURE:
     35 <221> NAME/KEY: primer_bind
     36 <223> OTHER INFORMATION: primer useful to clone human growth hormone cDNA
     38 <400> SEQUENCE: 1
                                                                             2.3
     39 cocaagaatt cocttatoca ggo
     42 < 210 > SEQ ID NO: 2
     43 <211> LENGTH: 33
     44 - 1212 > TYPE: DNA
     45 - 213 > ORGANISM: Artificial Sequence
     47 <220 > FEATURE:
     48 -221 > NAME/KEY: primer_bind
     49 - 223 > OTHER INFORMATION: primer useful to clone human growth hormone cDNA
     51 +400> SEQUENCE: 2
                                                                             33
     52 gggaagetta gaageeacag gateeeteea cag
     55 < 210 > SEQ ID NO: 3
     56 <211> LENGTH: 16
     57 <212> TYPE: DNA
     58 <213> ORGANISM: Artificial Sequence
     60 + 220 > FEATURE:
     61 - 221> NAME/KEY: misc_structure
     62 \cdot (223) OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments
     63
              with non-cohesive ends.
    65 < 400> SEQUENCE: 3
    66 gataaagatt cccaac
                                                                             16
     69 < 210 > SEQ ID NO: 4
     70 <211> LENGTH: 17
```

Input Set : A:\PF542SL.txt

Output Set: N:\CRF3\04302001\I832501.raw

71 <212 · TYPE: DNA 72 <213 - ORGANISM: Artificial Sequence 74 <220 - FEATURE: 75 <221 · NAME/KEY: misc\_structure 76 <223% OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 79 <400 · SEQUENCE: 4 17 80 aattyttggg aatcttt 83 <210 > SEQ ID NO: 5 84 <211> LENGTH: 17 85 <212> TYPE: DNA 86 <213 ORGANISM: Artificial Sequence 88 <220> FEATURE: 89 <221> NAME/KEY: misc\_structure 90 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 93 <400> SEQUENCE: 5 94 ttaggettat teccaae 17 97 <210> SEQ ID NO: 6 98 <211> LENGTH: 18 99 <212> TYPE: DNA 100 <213 > ORGANISM: Artificial Sequence 102 <220 > FEATURE: 103 <221> NAME/KEY: misc\_structure 104 <223 - OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 107 <400> SEQUENCE: 6 18 108 aattyttygg aataagco 111 <210 - SEQ ID NO: 7 112 <211 > LENGTH: 24 113 <212 > TYPE: PRT 114 <213 · ORGANISM: Artificial Sequence 116 <220 - FEATURE: 117 <221> NAME/KEY: SITE 118 < 222 > LOCATION: 1)..(19)119 <223> OTHER INFORMATION: invertase leader sequence 121 <2208 FEATURE: 122 <2215 NAME/KEY: SITE 123 <222> LOCATION: 20)..(24) 124 < 223 > OTHER INFORMATION: first 5 amino acids of mature human serum albumin 126 <400> SEQUENCE: 7 127 Met. Leu Leu Gln Ala Phe Leu Phe Leu Leu Ala Gly Phe Ala Ala Lys 1 1.281.0 130 Ile Ser Ala Asp Ala His Lys Ser 131 20134 <210> SEQ ID NO: 8

135 <2115 LENGTH: 21 136 <2125 TYPE: DNA

137 <213> ORGANISM Artificial Sequence

Input Set : A:\PF542SL.txt

Output Set: N:\CRF3\04302001\I832501.raw

139 <220> FEATURE: 140 <221 · NAME/KEY: misc\_structure 141 <223 - OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 144 <400 · SEQUENCE: 8 21 145 gagatgeaca cetgagtgag g 148 <210 · SEQ ID NO: 9 149 <211 - LENGTH: 27 150 <212> TYPE: DNA 151 <213> ORGANISM: Artificial Sequence 153 <220 > FEATURE: 154 <221> NAME/KEY: misc\_structure 155 <223 × OTHER INFORMATION: synthetic oligonucleotide used to join DNA 156 fragments with non-cohesive ends. 158 <400> SEQUENCE: 9 159 gateetgtgg ettegatgea cacaaga 27 162 <210 > SEQ ID NO: 10 163 <211> LENGTH: 24 164 < 212 > TYPE: DNA165 <213 → ORGANISM: Artificial Sequence 167 <220> FEATURE: 168 (221) NAME/KEY: misc\_structure 169 <223 > OTHER INFORMATION: synthetic oligonucleotide used to join DNA fragments with non-cohesive ends. 172 <400 > SEQUENCE: 10 173 etettgtgtg categaagee acag 24 176 <210 > SEQ ID NO: 11 177 <211 > LENGTH: 30 178 <2125 TYPE: DNA 179 <213 · ORGANISM: Artificial Sequence 181 -220 - FEATURE: 182 <221 > NAME/KEY: misc\_structure 183 <223 - OTHER INFORMATION: synthetic oligonucleotide used to join DNA 184fragments with non-cohesive ends. 186 -: 400 - SEQUENCE: 11 187 tqtqqaaqaq cctcaqaatt tattcccaac 30 190 - 210 - SEQ ID NO: 12 191 <211: LENGTH: 31 192 - 212 TYPE: DNA 193 <213> ORGANISM: Artificial Sequence 195 <220% FEATURE: 196 <221 NAME/KEY: misc\_structure 197 + (223) OTHER INFORMATION: synthetic oligonucleotide used to join DNA 198 fragments with non-cohesive ends. 200 -: 400> SEQUENCE: 12 31 201 aattgttggg aataaattct gaggctcttc c 204 < 210 > SEQ ID NO: 13

205 (211) LENGTH: 47 206 (212) TYPE: DNA

Input Set : A:\PF542SL.txt

Output Set: N:\CRF3\04302001\I832501.raw

- 207 <213> ORGANISM: Artificial Sequence
- 209 <220 > FEATURE:
- 210 <221 > NAME/KEY: misc\_structure
- $211 < 223 \times$  OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 214 <400> SEQUENCE: 13
- 215 ttaggettag gtggeggtgg ateeggeggt ggtggatett teceaac 47
- 218 -210 > SEQ ID NO: 14
- 219 <211> LENGTH: 48
- 220 <212> TYPE: DNA
- 221 <213> ORGANISM: Artificial Sequence
- 223 <220> FEATURE:
- 224 <221 > NAME/KEY: misc\_structure
- 225 <223 > OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 228 <400> SEQUENCE: 14
- 229 aattqttqqq aaaqateeac caeeqeeqga tecaeeqeea eetaagee 48
- 232 <210> SEQ ID NO: 15
- 233 <211> LENGTH: 62
- 234 <212> TYPE: DNA
- 235 <213> ORGANISM: Artificial Sequence
- 237 <220> FEATURE:
- 238 <221> NAME/KEY: misc\_structure
- 239 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 242 <400 > SEQUENCE: 15
- 243 thaqqottag goggtggtgg atotggtggc ggoggatotg gtggoggtgg atoottocca 60
- 244 ac
- 247 <210> SEQ ID NO: 16
- 248 <211> LENGTH: 63
- 249 <212> TYPE: DNA
- 250 <213> ORGANISM: Artificial Sequence
- 252 <220> FEATURE:
- 253 <221> NAME/KEY: misc\_structure
- 254 <223> OTHER INFORMATION: synthetic oligonucleotide used to join DNA
- fragments with non-cohesive ends.
- 257 <400> SEQUENCE: 16
- 258 aattyttyyg aaggatocac egecaecaga teegeegeea eeagateeae caeegeetaa 60
- 259 gcc
- 262 < 210 > SEQ ID NO: 17
- 263 <211> LENGTH: 1782
- 264 3212> TYPE: DNA
- 265 <2135 ORGANISM: Homo sapiens
- 267 220> FEATURE:
- 268 <201> NAME/KEY: CDS
- $269 \times 2225$  LOCATION: (1)..(1755)
- 272 <400> SEQUENCE: 17
- 273 gat goa cac aag agt gag gtt got oat ogg tit aaa gat tig gga gaa 48
- 274 Asp Ala His Lys Ser Glu Val Ala His Arg Phe Lys Asp Leu Gly Glu

Input Set : A:\PF542SL.txt

Output Set: N:\CRF3\04302001\I832501.raw

275	1				5					10					15		
		aat	ttc	aaa	-	ttg	ata	tta	att		+++	act	cag	tat		cad	96
						Leu											
279	314	11011	1 11.5	20		Lea	141	D.J.u	25	IIIa	1	1110	3111	30	шеа	3111	
	саσ	tat	сса		gaa	gat	cat.	αta		tta	ata	aat.	αаа		act.	gaa	144
282	_	-			_	Asp		-						-		-	
283	32	310	3.5		314	г		40	27.0	2334			45	,		314	
	ttt	qса	aaa	aca	tat	gtt	act	gat	qaq	tca	act	qaa	aat	tat	qac	aaa	192
286		-			_	Val	_	-			-	-			-		
287		50			_		55	•				60		•		1	
289	tca	ctt	cat	acc	ctt	ttt	gga	qac	aaa	tta	tgc	aca	gtt	gca	act	ctt	240
						Phe											
291	65					70					75					80	
293	cgt	gaa	acc	tat	ggt	gaa	atg	gct	gac	tgc	tgt	gca	aaa	caa	gaa	cct	288
294	Arg	Glu	Thr	Tyr	Gly	Glu	Met	Ala	Asp	Cys	Cys	Ala	Lys	Gln	$\operatorname{Glu}$	Pro	
295					85					90					95		
297	gag	aga	aat	gaa	tgc	ttc	ttg	caa	cac	aaa	gat	gac	aac	сса	aac	ctc	336
298	Glu	Arg	Asn	Glu	Cys	Phe	Leu	Gln	His	Lys	Asp	Asp	Asn	Pro	Asn	Leu	
299				100					105					110			
						cca											384
302	Pro	Arg		Val	Arg	Pro	Glu		Asp	Val	Met	Cys	Thr	Ala	Phe	His	
303			115					120					125				
	_		-			ttt	_									_	432
	Asp		Glu	Glu	Thr	Phe		Lys	Lys	Tyr	Leu	-	Glu	Ile	Ala	Arg	
307		130					135					140					
						tat ~		_	_								480
		HIS	Pro	Tyr	Phe	Tyr	Ala	Pro	Glu	Leu		Phe	Phe	Ala	Lys	-	
311						150			<b>.</b>		155		~~+			160	FOU
			-	-		aca	-	-	-			-			-		528
315	171	Lys	Ald	Ald	165	Thr	GIU	Cys	CYS	170	АТа	Ald	ASP	LYS	175	Ald	
	tuc	cta	+ +· ~	CC2		ctc	ra+	a a a	at t		at.	a a a	aaa	220		taa	576
		_	_		-	Leu		-			-						5 0
319	Cys	neu	LC.C	180	шуз	пси	пор	GIU	185	пта	NSP	Olu	.J 1. Y	$\frac{190}{190}$	niu	JCI	
	tot	acc	aaa		aga	ctc	ааа	tat		agt	ctc	caa	aaa		ада	даа	624
				_		Leu		-	_	_						-	OLI
3.23	2.1,2		$\frac{2}{195}$	,	3		-1-	200		202			205		- I		
325	aga	act		aaa	qea	tgg	qca		get	cac	ctq	agc		aga	ttt	ccc	672
						Trp											
327	,	210		. 1 -		L	215			,		220		,			
329	aaa	gct	gag	ttt	gca	gaa	gtt	tcc	aaq	tta	qtq	aca	gat	ctt	acc	aaa	720
		_				Ğlu	-										
331						230			-		235		-			240	
333	gtc	cac	acq	gaa	t.gc	tgc	cat	gga	gat	ctg	ctt	gaa	tgt	gct	gat	gac	768
3.34	Val	His	Thr	Glu	Cys	Cys	His	Gly	Asp	Leu	Leu	Glu	Cys	Ala	Asp	Asp	
335					245					250					255		
						aag				-		_		_			816
	Arg	Ala	Asp	Leu	Ala	Lys	Tyr	Ile	Cys	Glu	Asn	Gln	Asp	Ser	Ile	Ser	
334				260					265					270			



## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/832,501 TIME: 09:15:47

DATE: 04/30/2001

Input Set : A:\PF542SL.txt

Output Set: N:\CRF3\04302001\1832501.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 L:801 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 L:890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27

L:980 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 L:1184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 L:1287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33